

d. developing lead compounds for an inhibitor of bacterial IMPDH based on the map of three dimensional structural information of the molecular structure of IMPDH.

In claim 5, insert --crystalline-- before “molecule”

In claim 6, insert --crystalline-- before “molecule”

7. (Amended) A crystalline IMPDH molecule comprising coordinates from *S. pyogenes* IMPDH amino acids 50-56, 75-80, 229-235, 252-260, 283-286, 302-322, 343-345, 365-433, and 449-455.

In claim 8, line 1 insert --(inosine monophosphate)-- before “IMP” and replace “site” with --pocket--

Please add the following new claim.

9. A computer generated representation of a molecule or molecular complex comprising a binding pocket defined by the following structural coordinates of *S. pyogenes* IMPDH amino acids 50-56, 75-80, 229-235, 252-260, 283-286, 302-322, 343-345, 365-433, and 449-455.

REMARKS

I. Status of the Claims

Claims 1, 4-8 are amended

Claim 9 is added.

Claims 1-9 are pending.

II. Support for Claim Amendments

Support for the claim language may be found, for example, on pages 18-21 of the specification.

III. Claims 5-7 Are Not Directed to a Natural Product

Claims 5-7 were rejected under 35 U.S.C. § 101 as being directed to “a polypeptide which has the same characteristics as polypeptides found naturally.” (Action, page 3).

Claims 5-7 relate to structural coordinates defined by amino acids comprising the binding pocket of *S. pyogenes* IMPDH and homologous structures. As indicated by the reference to Table 7, the claims relate a crystal form of the protein which is not found in nature. As disclosed in the specification, the crystal structure was obtained using selenium substituted for sulphur in